

Short Summary of Claimed Subject Matter:

The present invention is directed to a method for applying a color design to a surface of a wall around protrusions, balconies, doors, windows, sills, or cornices using a movable application device, the method being especially suited to apply the color design fully to the surface. This includes applying the color design also to those positions (second position) on the surfaces, where a first measurement system is unable to provide valid position data due to intervisibility issues between components of the first measurement system.

Written description requirement:

Support for „applying paint at a second position on the surface by using the second measurement system wherein the first measurement system is unable to provide valid position data due to disturbed intervisibility between the movable application device and a minimum required number of stationary components“ can for example be found in the specification at:

- p. 5, ln. 3: „For the functionality of the first measurement system it is necessary, that intervisibility is established between the paint application device and a minimal required number of satellites.“
- p. 4, ln. 2: „A position may be invalid, if intervisibility is disturbed...“
- p. 1, 4th line from bottom: „...enables to paint the surface completely,...“ (emphasizes, that the surface has to be painted completely).
- p. 3, ln. 21-22: „For this intervisibility has to be possible between the relevant components of the first measurement system.“

Support for „relocating the paint application device to a third position on the surface, where valid position data is available from the first measurement system;“ can for example be found in the specification at:

- p. 3, ln. 21-25: „For this intervisibility has to be possible between the relevant components of the first measurements system. If not, the operator has to be informed, either by a negative message or by not providing a positive message, and the operator is instructed to move the

paint application device over the surface, until the first measurement system supplies a valid position."

- p. 4, ln. 14-16: "For this intervisibility has to be possible between the relevant components of the first measurements system. If not, the operator has to be informed, either by a negative message or by not providing a positive message,"

Support for "and subsequently moving the application device from the third position to the second position on the surface, where the position data of the second position is calculated by the computer control unit based on the third position from the first measurement system, and movement data from second measurement system." can for example be found in the specification at:

- p. 4, ln. 16-18: "and the operator is instructed to move the paint application device over the surface, until the first measurement system supplies a valid position."
- p. 4, ln. 8: "the subsequent position calculation will only be based on actual measurement data from the second measurement system and past position information."

Summary of Amendments and Response to the examination report, dated 09/20/2010

Claim 65 is deleted in Response to Chapter 1 on page 2 of the examination report.

Claim rejections acc. to 35 USC § 112, first paragraph, pg. 3 of the examination report, have become apparent to be the consequence of deficits in claim language. The original claim language implied, that the paint applying elements also may be located ON the wheels. This implication however lacks support in the description. The amendments now eliminate the language deficits by stating, that the "paint application elements protrude laterally beyond the rollers or sliding elements".

Claim rejection acc. 35 U.S.C. 112, second paragraph, pg. 3 and pg. 4 of the examination report: With the amendments of claim language now claim 64 definitely points out the subject matter which is regarded as the invention. Applicant at this point gratefully acknowledges the examiner's support on telephone.

35 USC § 103 claim rejections:

1. Slupe [US 6942402] does not apply a color design to a surface of a wall around protrusions, balconies, doors, windows, sills, or cornices. While Slupe discloses a frame (col 5 ln. 5), this frame is

not a protrusion, balcony, door, window, sill or cornice. Instead the frame is a part of his measurement system, similar to a stationary component of the first measurement system.

2. The examination report cites on pg. 7, ln 7: „changing the position of the paint application device to a position, where a valid position is available from the first measurement system“ as being disclosed by SLUPE in [col 10, ln 55-62].

Slupe discloses in [col 10, ln 55-62]: „Next, in step 214, manual printer 10 determines if the signal from emitter 24 used to determine the location of manual printer 10 is present. If the signal is not present, then, in step 216, manual printer 10 indicates to the user through LCD display 26 that the signal from emitter 24 has not been detected. If the signal is detected, then, in step 218, manual printer 10 determines if the signal provided by emitter 24 is sufficiently strong. If it is not, then control is returned to step 216.“

SLUPE does not disclose or suggest to relocate the application device to another position (third position), where „valid position data is available from the first measurement system“.

And further Slupe does not disclose „subsequently moving the application device from the third position to the second position (this could be the initial position) on the surface“.

Slupe further does not perform the step of „subsequently moving the application device from the third position to the second position (this could be the initial position) on the surface“ he also does not disclose „where the position data of the second position is calculated by the computer control unit based on the third position from the first measurement system, and movement data from second measurement system“. So the mentioned steps are new and non-obvious for a person skilled in the art with view to Slupe.

The following is a pure technical explanation why Slupe performs the steps described in [col 10, ln 55-62]: The signal provided by emitter (=sender) may not be present [214] or sufficiently strong [218], see also Fig. 3a. It is known to a person skilled in the art, that a signal provided by an emitter 24 (RF, light, sound) may be degraded from time to time, especially during the switch-on phase or simply during operation. To overcome this defect the person skilled in the art usually will wait for a short moment, since the signal usually will improve quickly. So Slupe only proposes to detect [214 and 218] and indicate [216] the signal repeatedly, until the signal improves. If, as in this application, „the first measurement system is unable to provide valid position data due to disturbed intervisibility between the movable application device and a minimum required number of stationary components“ (see also Fig.

5, in the region of obstacle 16 of this application), the action of waiting, until the signal improves, will be unsuccessful, because the signal at this „second position“ will not improve over time.

3. The examination report further cites on page 7: „...which measures a velocity (motion) of the paint application device [col 9, ln 60-63].“ [col 9, ln 60-63] is cited herewith: „The image data to provide to imaging mechanism 140 is determined using the computed position and velocity of manual printer 142.“ When looking more into the depth, how Slupe acquires velocity of the manual printer, it can be seen, that SLUPE does NOT measure a velocity, instead he only computes the velocity, see [col 9, ln 18-21]: „In addition to determining position, processor 136 computes velocity and acceleration of manual printer 142 using the two components of the signal“, „signal“ is the output data of his „first measurement system“.

Respectfully submitted


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